

7UfXk Y```GdU'Dcc`gž'Ei YYbg`UbX' Jc``ghÀbX][Yf'@Y]hZUXYb

8]Y '7 UfXk Y```GdU'Dcc`gʻg]bX'gY]h``Ub[Ya 'Y]b'VY`]YVhYg
GWk]a a `cW. 'XYfʻ9]b\Y]a]gW.Ybž[Y`hYb'UVYf'Yhnh'U`g'Y]b
A i ggʻZØfʻY]bYb'6Ygi W.']a `\c\Yb'BcfXYb'j cb'E i YYbg`UbX"
9]b'j c``ghAbX][YfʻFY]gYZØ\fYfžXYfʻU``Yg'Ybh\A`hžk UgʻG]Y
k]ggYb'a ØggYb*'7 UfXk Y```GdU'Dcc`gʻ]gh'Y]b'bUhØf`]W\
Z]Y» YbXYfž'gU]gcbU`Yfʻ6UW.'Ua '7 UfXk Y```: cfYgh'8f]j Yž'bi f
k Yb][Y'A]bi hYb'j cb'XYfʻ5i hcVU\bghUXh'YbhZYfbh"'5VYfʻk Ug
]gh'XUfUb'gc'VYgcbXYfg3'9g']gh'_Y]b'; Y\Y]a b]gž'XUgg'Yg'X]Y
Y]bn][Ufh][Y'hfcd]gW.Y': UfVY'XYg'K UggYfg']ghž'X]Y'X]Y
A UggYb'Ubn]Y\h"'8]YgY'h]YZYbž'hØf_]gZUfVYbYb'Dcc`gʻ]a
hfcW_YbYb'9i _U`mdhi gk U`X'g]bX'Y]bY'k U\fY'C UgYž'X]Y
Zchc[fUZ]Yfh'k YfXYb'a ÒW.hY''K Ybb'G]Y'Ybh`Ub['XYf

8]Y'7UfXk Y``'GdU'Dcc`g'g]bX'gY]h'`Ub[Ya 'Y]b'VY`]YVhYg
GWk]a a `cW\'XYf'9]b\Y]a]gW\Ybž'[Y`hYb'UVYf'Yhnh'U`g'Y]b'Aigg
ZØf'Y]bYb'6Ygi W\']a '\c\Yb'BcfXYb'j cb'EiYYbg`UbX"'9]b
j c``ghÀbX][Yf'FY]gYZØ\fYfž'XYf'U``Yg'Ybh\À`hž'k Ug'G]Y'k]ggYb
a ØggYb°

7 UfXk Y```GdU`Dcc`g`]gh'Y]b`bUhØf`]W\`Z]Y» YbXYfž'gU]gcbU`Yf`6UW\ Ua `7 UfXk Y```: cfYgh'8f]j Yž'bi f'k Yb][Y`A]bi hYb'j cb'XYf 5i hcVU\bghUXh'YbhZYfbh" 5VYf'k Ug`]gh'XUfUb'gc'VYgcbXYfg3

9gʻ]ghʻ_Y]bʻ; Y\Y]a b]gž'XUggʻYgʻX]YʻY]bn][Ufh][Yʻhfcd]gW\Yʻ: UfVY XYgʻK UggYfgʻ]ghž'X]YʻX]YʻA UggYbʻUbn]Y\h"·8]YgYʻh]YZYbž hØf_]gZUfVYbYbʻDcc`gʻ]a 'hfcW_YbYbʻ9i _U`mdhi gk U`Xʻg]bXʻY]bY k U\fYʻC UgYž'X]YʻZchc[fUZ]Yfh'k YfXYbʻa ÒW\hY''

 gYhnYb"'<]Yf']gh'a Y]b'j c``ghÀbX][Yf'@Y]hZUXYbži a 'ni 'XYb'Dcc`g'ni [Y`Ub[Ybž'XYf'U``Y'=\fY': fU[Yb'VYUbhk cfhYb'gc``hY'' U`h1 75F8K 9@@GD5'DCC@Gž'6@ 9'DCC@G'E | 99BG@5B8 2

7 UfXk Y``'GdU'Dcc`g' 'k c']gh'XUg3'

8]Y'7UfXk Y``'6`i Y'Dcc`g'VYZ]bXYb'g]W\'Ua '7UfXk Y``': cfYgh'8f]j Yž bi f'+'?]`ca YhYf'j cb'XYf'; Ya Y]bXY'7UfXk Y``'YbhZYfbh"'7UfXk Y``]gh'gc'n]Ya `]W\'X]Y'\U`VY'GhfYW_Y'j cb'Hck bgj]``Y'bUW\'7U]fbgž Yhk U'%, \$'?]`ca YhYf'j cb'7U]fbg'i bX'%*) '?]`ca YhYf'j cb Hck bgj]``Y'YbhZYfbh"

K]Y _ca a Y]WX \]Yf \]b

I a `\]Yf\Yf`ni `[Y`Ub[Ybž'a ØggYb`G]Y`g]W\`ni bÀW\gh`Ui Z`XYa 6fi W\`<][\k Um'bUW\`7UfXk Y```VY[YVYb"'8]Y`Dcc`g`VYZ]bXYb`g]W\
Ua `7UfXk Y```: cfYgh'8f]j YžY]bYf`b]W\h'j Yfg]Y[Y`hYb`GW\`Y]ZY`a]h
Ni [Ub[gdi b_hYb'j ca `7UfXk Y```; c`Z'7`i V`i bX`Yhk Ug`k Y]hYf
bÒfX`]W\`Ub`XYf`9``YfVYW_`FcUX"

GcVU`X'G]Y'XYb'5bZUb['XYg': cfYgh'8f]j Y'YffY]W\h'\UVYbž'a ØggYbG]Y'bif'bcW\'XYf'GhfU»Y'Zc`[Ybž'V]g'G]Y'XYb'_`Y]bYbž'ZUghjYfghYW_hYb'DUf_d`Uhn'gY\Yb"

CVk c\`X]Y 'GhfU» Y 'b]W\h'Ugd\U`h]Yfh']ghz']gh'g]Y '[ih'UV[YghiZh'ibX G]Y '_ObbYb'X]Y '7 UfXk Y``'GdU'Dcc`g'a]h'Y]bYf'bcfaU`Yb'@]acig]bYcXYf'Y]bYa': `]Y»\YW_'a]h'Nk Y]fUXUbhf]YV'YffY]W\Yb''K Ybb'G]YX]Y 'ibVYZYgh][hYb'GhfU» Yb'`]YVYf'aY]XYb'aOW\hYbz'bY\aYb'G]YX]Y 'bOfX`]W\Y'NiZU\fh'UiZ'XYf'9``YfVYW_'FcUX'fg]Y\Y'?UfhY'ibhYbŁZXU'X]YgY': U\fh'_ØfnYf']gh"

G]Y'_ÒbbYb'; cc[`Y'A Udg'j Yfk YbXYbž'i a '⇒bYb'VY]'XYf BUj][Uh]cb'ni '\Y'ZYb/XYf'Gh]Zh']gh'[YbUi "

; cc[`Y`A Udg`D]b.` 7UfXk Y```GdU!Dcc`

? UfhY XYf 7UfXk Y``GdU!Dcc`g

I bhYb`\UVY`]W\`Y]bY`?UfhY`VY][YZØ[hžX]Y`bØhn`]W\`]ghži a `ni `XYb7UfXkY```GdU`Dcc`gʻni `[Y`Ub[Yb"`5i »YfXYa `Ybh\À`h`Yg`Y]b][YkY]hYfY`6ÀW\Y`i bX`5i gg]W\hgdi b_hYžkYbb`G]Y`a Y\f`j cb`XYf;Y[YbX`Yf_i bXYb`a ÒW\hYb"

U`h1 ?5FH9'89F'75F8K 9@@'GD5!DCC@G 2EiY``Y.': BE

K Ug'G]Y']b'XYb'7UfXkY``GdU'Dcc`g'Yfk UfhYh

GcVU`X'G]Y'Ui Z'XYa '_`Y]bYbž'i bVYZYgh][hYb'DUf_d`Uhn'Ub_ca a Ybžg]bX'G]Y'gc'n]Ya `]W\'gW\cb'VY]'XYb'Dcc`g"'BY]bž'Yg']gh'_Y]bY K UbXYfi b['YfZcfXYf`]W\ž'i a '\]Yf\Yf'ni '[Y`Ub[Yb"

 $: Ugh : gc Zc fh : k YfXYb : G]Y : X]Y : Y]bn][Ufh][Y : hØf_]gZUfVYbY : c XYf : ZUgh Uei UZUfVYbY : HÒbi b[: XYg : K UggYfg : VYa Yf_Yb :: 8]Y : [YgUa hY GnYbYf]Y : ZØ\ `hY : g]W\ : b]W\ h : k]f_`]W\ : gc : Ub ž : U`g : k ØfXY : g]Y :]b : X]Y Hfc W_Ybk U`X`Ub XgW\ UZhYb : j cb : 7 UfXk Y`` : [Y\ÒfYb :: j]Y ``Y]W\ h :]gh XUg : Y]b : HY]` : XYg : 7 \ Ufa Yg :$

U`h1 75F8K 9@@GD5 DCC@GEI 99BG@5B8 2

9g'[]Vh'Y]bYb'_Øbgh`]W\Yb'GhY]bghUdY`ž'XYf'XUg' GdU 'V]`XYhž gck]Y'Y]bYb'6Ui a ghi a dZž'XYf'Y]bY'dYfZY_hY'Gdfi b[d`UhhZcfa ']bX]Y'h]YZYbž'V`Ui Yb'Dcc`q'V]`XYh"

U`h1 75F8K 9@@'GD5'DCC@G'EI 99BG@5B8 2

@Y]XYf'[]Vh'Yg'b]W\hij]Y``D`Uhnži a 'g]W\`Ub'XYb'FÀbXYfb'XYg'Dcc`g ni 'gcbbYb"'G]Y'_ÒbbYb''YXcW\'Yhk Ug'k Y]hYf'Zi ggUi Zk Àfhg'[Y\Ybž cVk c\``XYf'K UggYfghUbX'\]Yf'j]Y``b]YXf][Yf']qh"

K Ybb'G]Y'b]WhXUfUb'[YXUW\h'\UVYbž'X]Y'; Y[YbX'ni 'VYgi W\Ybž_LUbb']W\'Yg'bi f'k Àfa ghYbg'Ya dZY\`Yb°'8]YgYf'Y]bn][Ufh][Y 6UXYcfh']gh'bi f'X]Y'Gd]hnY'XYg'9]gVYf[g' 'X]Y'7Uggck Ufm'7cUgh i bX'<]bW\]bVfcc_'g]bX'Y]bYf'XYf'k]`XYghYb'CfhY'5i ghfU`]Ybg°'G]Y Z]bXYb'Ui W\'5i ghfU`]Ybg'\ÒW\ghYb'K UggYfZU``ž'XYf'bi f'Y]bY'_i fnY 5i hcZU\fh'YbhZYfbh'j YfghYW_h']gh°

'U`h1 ; fUm`!: `UgWXY 2

A $\grave{O}W_hYb^*G]Y^*a Y]b^*; YYY]a b]g^*ZØf^*Zf]gW_Yg^*Hf]b_k UggYf^*ØVYfU^*^Ui Z XYf^*K Y^h^YfZUYfYb3$

- GdUfh'HUi gYbXY'j cb'D'Ugh]_Z'UgWXYb'j cf'XYf'A Ø''XYdcb]Y
- 9bhZYfbh'ØVYf'--ž--i 'XYf'J]fYbž'6U_hYf]Ybž'DfchcncYbž DUfh]_Y`ž'7\Ya]_U`]Yb'i bX'gc[Uf'GW\kYfaYhU``Y
- 8Yf'Y]bZUWXghY'i bX'VYei Ya ghY'K UggYfZ]`hYf'Ui Z'XYa A Uf_h

K Ufi a ']gh'XYf'7UfXk Y``'GdU!Dcc`'V`Ui 3'

K Y]» h'Xi 'k Ugž'XUg'\UVY']W\a]W\'Ui W\[YZfU[h"'5bgW\Y]bYbX Yf\U`hYb'X]Y'7UfXk Y``'GdU'Dcc`g']\fY'Y]bn][Ufh][Y'V`Ui Y': UfVY j cb'XYf'7\Ya]Y'XYf': Y`gYb'i bX'XYg'K UggYfg"

8]Y'EiY``Y'XYg': `i ggYg'XYg'6UWXYg'g]bX'\Ui dhgÀWX`]WX
i bhYf]fX]gWXY'5V`U[Yfi b[Ybž'X]Y'fY]WX'Ub'A]bYfU`]Yb'k]Y
A U[bYg]i a 'i bX'?U`n]i a 'g]bX"'8]Yg'ZØ\fh'ni 'XYf'Y]bn][Ufh][Yb
6`Ui hÒbi b['XYf'Dcc`gž'X]Y'Y'bUWX'j YfZØ[VUfYa '@]WXh'j cb'HØf_]g
V]g'ni 'Y]bYa 'a]`WX][Yb'6UVmV`Ui 'fY]WXYb'_Ubb"
U`h1 75F8K 9@@'6@5I 'DCC@G 2

B]Wkhij YfdUggYb. 6UV]bXU 6ci `XYfg`f]b XYf BÀ\Y j cb 7U]fbgŁ

AY\f'=bZcfa Uh]cbYb

G]bX' < i bXY']b'XYb'7UfXkY```GdU'Dcc`g'Yf`Ui Vh3

 $\begin{tabular}{ll} K & \begin{tabular}{ll} & \begin{tabular}{l$

8 Yf K UggYfghUb X ']b 'XYb '7 UfXk Y```GdU'Dcc`g'j Uf]]Yfh'j cb 'GU]gcb ni 'GU]gcb'i b X 'b UWX '\YZh][Yb 'F Y[Yb [ØggYb"'HUhgÀ WX`]WX 'hfc W_bYb X]Y '6 Y W_Yb ']b 'XYf 'Hfc W_Yb n Y]h'c Zh'_ca d`Yhh'Ui g° 'K À\fYb X'XYf F Y[Yb n Y]h'c XYf 'k Ybb 'Yg']b 'YhnhYf 'N Y]h'Yhk Ug'[YfY[b Yh'\Uhž k Yf XYb 'G]Y 'Yfk UfhYb Z' XUgg' X]Y 'H]Y ZY ']b 'XYf 'B À\Y 'XYg 6Ui a ghi a d Zg'a Y\f'U`g' & A YhYf'VYhf A[hz'UVYf'j]Y` 'Z'UWXYf ghfca Ui Zk Àfhg"

K Ubb]gh X]Y VYghY NY]hži a 'X]Y 7 Uf Xk Y``! Dcc`gʻni 'VYgi WXYb3

8 U 'Yg 'g]W 'i a 'Y]bYb 'gU]gcbU`Yb '6 UW '\ UbXY`hž]gh'X]Y 'VYghY 'NY]hž X]Y '7 UfXk Y`` 'GdU 'Dcc`gʻni 'VYgi W Ybž'nk]gW Yb 'A U]'i bX GYdhYa VYf"' \$\text{XYf'FY[YbnY]h'_ObbYb 'ghUf_Y'FY[YbZ\A``Y'XUni ZØ\fYbž'XUgg'XYf'6 UW 'ØVYf`\Ai Zh"' K \A\fYbX'XYf'Hfc\W_YbnY]h'_Ubb Yg'YXc\W ž'k]Y 'Yfk \A\bhž'j \O``]['Ui ghfc\W_bYbž'k Ybb 'Yg'b]W\h [YfY[bYh'\Uh"

'U'h1 75F8K 9@@'GD5'DCC@'6@5| 9F'DCC@ 2

, VYfbUW\hi b[ga O()]W_Y]hYb^]b^XYf^B\A\Y j cb^7UfXk Y^\

5bgcbghYb']gh'XUg'7UfXkY```6YUW\Wca VYf']b'XYf'BÀ\Y'i bX'\Uh - ž&#%\$'6YkYfhi b[Yb'Ui Z'6cc_]b["Wca "

7Ua d]b[']b 'XYf 'B À\Y 'XYf '7UfXk Y `` 'GdU 'Dcc `g

9g'[] Vh'_Y]bYb'Ui g[Yk]YgYbYb'7Ua d]b[d`Uhn']a '7UfXkY``: cfYgh FYgYfj Y'cXYf'Ybh`Ub['XYf'5i ZZU\fh"'9g'[]Vh''YXcW'Y]b][Y [fc»Ufh][Y'CfhY']b'XYf'BÀ\Y"

9]b'dUUf'7Ua d]b[!<][\`][\hg']b'XYf'BÀ\Y'j cb'K UggYfZÀ``Yb'g]bX A i ffUm': U``g'i bX'6`YbWcY': U``g"

FYggcifWb."?cghYb`cgY'Cdh]cbYb'p'6YnU\`hY'Cdh]cbYb

A Y\f. A i gh!J]g]hg]a \c\Yb BcfXYb j cb E i YYbg`UbX

⇒W. '\cZYž'⇒bYb'\Uh'X]YgYf'?i fnZØ\fYf'ZØf'XYb'6Ygi W.'XYf

VYfØ\a hYb'7UfXk Y``GdU'Dcc`g']b': Uf'Bcfh\'Ei YYbg`UbXž

5i ghfU`]Ybž'[YZU``Yb"'I bhYb'\UVY']W.'Y]b][Y'@]b_g'ni 'k Y]hYfYb

5fh]_Y`b'Y]b[YZØ[hž'X]Y']W.'ØVYf'Yd]gW.Y'5_h]j]hÀhYb']b'XYf'FY[]cb
[YgW.f]YVYb'\UVY"'; Yb]Y»Yb°

A 9=B 9 ? 5 A 9F 5 I B 8 : C H C 5 I G F , G H I B ;

- Gd]Y[Y``cgY'?Ua YfU.'7Ubcb'F)
- 8 fc \ bY. '8 > A Uj]WDfc '&
- ' *\$!; fUX!5Wh]cb!?Ua YfU. =bghU' *\$ CbY L&
- @UbXgWXUZhgcVY_h]j . 7 Ubcb F: %)!') a a Z#&", @
- 5``fci bX!CVY_h]j . '7Ubcb'F: '&(%\$) 'a a 'Z#(@
- HY`YcVY_h]| . '7 Ubcb'F: '%\$\$) \$\$ a a 'Z#Z#(ž) + ž%'@
- @Ub[Y'5_h]cbgghUb[Y.'+bghU' *\$'+bj]g]V`Y'Dc`Y'fbi``YhH]a YŁ
- @UbXgWXUZhg`]bgYbZ]`hYf.'< cmU'7]fW'`Uf'Dc`Uf]nYf
- ? Ua YfUfi W_gUW_. :: !Ghcd 'H]`cdU
- @ $YV^{b}[gZchcniVY\\dot{O}f.DYU_8Yg][b.7UdhifY.7^{d}$

9]bY'@]ghY'a Y]bYf'Ya dZc\`YbYb': chcUi gfØghi b['fY]bgW\`]Y»`]W\ k Ug']W\'VYbi hnY'i bX'k Ufi a Ł'Z]bXYgh'Xi ']b'a Y]bYa '@Y]hZUXYb'ZØf?Ua YfUUi gfØghi b['ZØf'X]Y'FY]gY"

K Ybb'G]Y'Y]bYg'XYf': chcg'Ui Z'X]YgYf'K YVg]hY'j Yfk YbXYb
a ÒW hYbž'VYgi W Yb'G]Y'V]hhY'a Y]bY'@nYbn]Yfi b[ggY]hYž'i a
\YfUi gni Z]bXYbž'k]Y"'→W 'j Yf_Ui ZY'Ui W 'dfcZYgg]cbY``Y
?i bghXfi W_Yž'VYgi W Yb'G]Y'a Y]bYb'Df]bh'GhcfY'cXYf'_cbhU_h]YfYb
G]Y'a]W 'X]fY_h'ZØf'Nc``UVnØ[Y'j cb'6]`XYfb'Ui Z'K Y'GYY_'HfUj Y`"
U`h1 2

5i Z'D]bhYfYgh3

 $K \ Ufi \ a \ "gdY] W \ Yfb \ "G] Y \ "X] YgYb \ "@Y] hZUXYb \ "ni \ "7 \ UfXk \ Y \ "GdU \ Dcc \ "g b] W \ h \ "ZØf \ "gd Å h \ Yf3 \ K \ Ybb \ "G] Y \ "K \ Y \ "GYY \ "HfUj \ Y \ "Ui \ Z'D] b h \ YfYgh \ "Zc \ [Ybž \ N \ Ybb \ "G] Y \ "K \ Y \ "GYY \ "HfUj \ Y \ "Ui \ Z'D] b h \ YfYgh \ "Zc \ "Ybž \ N \ Ybb \ "G] Y \ "K \ Y \ "GYY \ "HfUj \ Y \ "Ui \ Z'D] b h \ YfYgh \ "Zc \ "Ybž \ N \ Ybb \ "G] Y \ "K \ Y \ "GYY \ "HfUj \ Y \ "Ui \ Z'D] b h \ YfYgh \ "Zc \ "Ybž \ N \ Ybb \ "G] Y \ "K \ Y \ "GYY \ "HfUj \ Y \ "Ui \ Z'D] b h \ YfYgh \ "Zc \ "Ybž \ N \ Ybb \ "G] Y \ "K \ Y \ "GYY \ "HfUj \ Y \ "Ui \ Z'D] b h \ YfYgh \ "Zc \ "Ybž \ "Ybž \ "Ybž \ "Ybb \ "Ybž \ "Ybb \ "Ybb$

V`Y]VYb`G]Y`a]h`U```XYb`bYi Yb`FY]gYZØ\fYfb`i bX`6`c[g`Ui Z'XYa @Ui ZYbXYb"

D=B '9G': C@, 9'A =

п

8 Y hU]`ç

6Ygi WXYb G]Y i bg Ui Z Y]bY!fY]gY "XY